

1. (Currently Amended) A method for operating a partially closed, turbocharged gas turbine cycle, ~~in which the method comprising:~~

burning fuel is burnt in a combustion chamber (6) when while supplying a gaseous, compressed working medium which contains combustion air is supplied, the, to generate hot combustion gases;

expanding a working medium which contains the hot combustion gases is expanded in a turbine (2) of a gas turbine (1, 2, 3), said turbine performing work as it does so;

extracting heat is extracted from the expanded working medium in a downstream recuperator (5), to generate cooled working medium;

compressing the cooled working medium is then compressed in a compressor (1) of the gas turbine (1, 2, 3), and;

feeding heat is fed to the compressed working medium in the recuperator (4) before it said compressed working medium re-enters the combustion chamber (6), and in which method;

removing a portion of the expanded working medium on the a low-pressure side of the recuperator (5) some of the expanded working medium is removed at a removal location (9) which is at a suitable first temperature level, and is expanded further expanding said removed expanded working medium portion in the turbine (14) of a first exhaust-gas turbocharger (ATL2), and;

sucking in and compressing air is sucked in and compressed by the with a compressor (13) of the first exhaust-gas turbocharger (ATL2), and; and

feeding the compressed air is fed to the working medium on the a low-pressure side of the recuperator (5) at a feed location (10) which is at a suitable second temperature level, characterized in that a;

wherein said gas turbine (1, 2, 3) whose compressor (1) is designed as comprises a radial compressor is used.

2. (Currently Amended) The method as claimed in claim 1, ~~characterized in that the~~ wherein said gas turbine (1, 2, 3) used is comprises a second exhaust-gas turbocharger (ATL1).

3. (Currently Amended) The method as claimed in claim 1, ~~characterized in that the wherein said gas turbine (1, 2, 3) used is~~ comprises a microturbine.

4. (Currently Amended) The method as claimed in ~~one of claims 1 to 3~~ claim 1, ~~characterized in that the fraction of~~ further comprising:
expanding said removed expanded working medium portion the working medium which is removed at the removal location (9) is expanded in such a manner in the turbine (14) of the first exhaust-gas turbocharger (ATL2) so that the power required to drive the compressor (13) of the first exhaust-gas turbocharger (ATL2) is produced.

5. (Currently Amended) The method as claimed in ~~one of claims 1 to 4~~ Claim 1, ~~characterized in that wherein~~ the quantity of air supplied to the working medium by the compressor (13) of the first exhaust-gas turbocharger (ATL2) at least covers the demand for combustion air in the combustion chamber (6).

6. (Currently Amended) The method as claimed in ~~one of claims 1 to 5~~ Claim 1, ~~characterized in that wherein~~ the second temperature level approximately corresponds to the compressor outlet temperature.

7. (Currently Amended) The method as claimed in ~~one of claims 1 to 6~~ Claim 1, ~~characterized in that further comprising:~~
extracting heat is extracted from the working medium in a precooler (7) between the a low-pressure-side exit from the recuperator (5) and the entry to the compressor (1) of the gas turbine (1, 2, 3).

8. (Currently Amended) The method as claimed in ~~one of claims 1 to 7~~ Claim 1, ~~characterized in that further comprising:~~

~~controlling~~ the rotational speed of the first exhaust-gas turbocharger (ATL2) ~~is controlled by means of with~~ an auxiliary machine ~~which is connected to the first exhaust-gas turbocharger (ATL2) and in particular takes the form of an electrical machine (15) connected to the grid system via converters, in order to set the level of turbo charging.~~

9. (Currently Amended) The method as claimed in ~~one of claims 1 to 7~~ Claim 1, ~~characterized in that further comprising:~~

~~controlling~~ the rotational speed of the first exhaust-gas turbocharger (ATL2) ~~is controlled by with~~ an adjustable bypass (11) between the compressor (13) and the turbine (14) of the first exhaust-gas turbocharger, (ATL2) in order to set the level of turbo charging.

10. (Currently Amended) The method as claimed in claim 2, ~~characterized in that further comprising:~~

~~compressing~~ the working medium which comes out of the compressor (1) of the gas turbine (1, 2, 3) ~~is compressed further in the compressor of a third exhaust-gas turbocharger (ATL3) before it said working medium enters the recuperator (5), and in that~~

~~initially expanding~~ the working medium which flows out of the combustion chamber (6) ~~is initially expanded in the turbine (17) of the third exhaust-gas turbocharger (ATL3) before it said working medium enters the turbine (2) of the gas turbine (1, 2, 3).~~

11. (Currently Amended) The method as claimed in claim 10, ~~characterized in that further comprising:~~

~~cooling~~ the working medium ~~is cooled in an intercooler (12) before it said working medium enters the compressor (16) of the third exhaust-gas turbocharger (ATL3), and in that~~

~~reheating~~ the exhaust gas from the turbine (17) of the third exhaust-gas turbocharger (ATL3) ~~is reheated in a further combustion chamber (6').~~

12. (Currently Amended) A gas turbine system useful for carrying out the method as

claimed in claim 1, the system comprising:

a generator;

a common shaft;

a gas turbine (1, 2, 3) having a compressor (1) and a turbine (2), which via a common shaft (3) drive a the generator (4), via the common shaft, the turbine having an entry and an exit, a recuperator having a high-pressure side and a low-pressure side, and a combustion chamber (6), the having an exit of which is connected to the entry to the turbine (2) of the gas turbine (1, 2, 3), has the compressor having an exit, a fuel feed, (8) and receives being configured and arranged to receive combustion air from the exit of the compressor (1) of the gas turbine (1, 2, 3) via the high-pressure side of a the recuperator (5), the exit of the turbine (2) and the entry to the compressor (1) of the gas turbine (1, 2, 3) being connected via the low-pressure side of the recuperator (5); and

a first exhaust-gas turbocharger, (ATL2) which sucks configured and arranged to suck in air, including a compressor having an exit and a turbine having an entry, the first exhaust-gas turbocharger being connected to different locations (9, 10) of the low-pressure side of the recuperator (4) by means of the exit of its the compressor (13) of the first exhaust-gas turbocharger and the entry to its the turbine (14), of the first exhaust-gas turbocharger; characterized in that

wherein the compressor (1) of the gas turbine (1, 2, 3) is designed as comprises a radial compressor.

13. (Currently Amended) The gas turbine system as claimed in claim 12, ~~characterized in that~~ wherein the gas turbine (1, 2, 3) is designed as comprises a second exhaust-gas turbocharger (ATL1).

14. (Currently Amended) The gas turbine system as claimed in claim 12, ~~characterized in that~~ wherein the gas turbine (1, 2, 3) is designed as comprises a microturbine.

15. (Currently Amended) The gas turbine system as claimed in ~~one of claims 12 to 15~~Claim 12, characterized in that further comprising:
_____ a precooler (7), which can be used configured and arranged to discharge heating heat, is
arranged between the entry to the compressor (1) of the gas turbine (1, 2, 3) and the low-pressure-side exit of the recuperator (5).

16. (Currently Amended) The gas turbine system as claimed in ~~one of claims 12 to 16~~Claim 12, characterized in that wherein the first exhaust-gas turbocharger (ATL2) can is
configured and arranged to be driven by an auxiliary machine, in particular in the form of an
electrical machine (15) connected to the grid system via converters.

17. (Currently Amended) The gas turbine system as claimed in ~~one of claims 12 to 16~~Claim 12, characterized in that further comprising a bypass valve (11) is arranged between the
exit from the compressor (13) and the entry to the turbine (14) of the first exhaust-gas turbocharger (ATL2).

18. (Currently Amended) The gas turbine system as claimed in ~~one of claims 12 to 15~~Claim 12, characterized in that further comprising:
_____ a third exhaust-gas turbocharger (ATL3) is having a compressor and a turbine and being
arranged between the gas turbine (1, 2, 3) and the high-pressure side of the recuperator (5), ~~in~~
~~such a manner so~~ that the compressor (16) of the third exhaust-gas turbocharger (ATL3) is
arranged between the exit from the compressor (1) of the gas turbine (1, 2, 3) and the high-pressure-side entry of the recuperator (4), and the turbine (17) of the third exhaust-gas turbocharger (ATL3) is arranged between the entry to the turbine (2) of the gas turbine (1, 2, 3) and the exit from the combustion chamber (6).

19. (Currently Amended) The gas turbine system as claimed in claim 18,
~~characterized in that wherein the~~ compressor of the third exhaust gas turbocharger has an entry,

and further comprising:

_____ an intercooler (12) is arranged between the exit from the compressor (1) of the gas turbine (1, 2, 3) and the entry to the compressor (16) of the third exhaust-gas turbocharger (ATL3); ~~and in that~~

_____ a further combustion chamber (6') is arranged between the turbine (17) of the third exhaust-gas turbocharger (ATL3) and the turbine (2) of the gas turbine (1, 2, 3).

20. (Currently Amended) The gas turbine system as claimed in ~~one of claims 18 or 19~~ Claim 18, characterized in that wherein the mass flow in the first exhaust-gas turbocharger (ATL2) is approximately a quarter of the mass flow in the second exhaust-gas turbocharger (ATL1), and ~~in that~~ the third exhaust-gas turbocharger (ATL3) is designed configured and arranged for approximately half the volumetric flow of the gas turbine (1, 2, 3).

21. (New) The method as claimed in Claim 8, wherein the auxiliary machine comprises an electrical machine, converters, and a grid system, the electrical machine connected to the grid system via the converters.

22. (New) The gas turbine system as claimed in Claim 16, wherein the auxiliary machine comprises an electrical machine, converters, and a grid system, the electrical machine connected to the grid system via the converters.